

### REMARKS

Claims 1, 2, 8-13, and 21-23 are all of the claims presently pending in the present Application. Applicants have canceled claims 3-6 without prejudice or disclaimer. Applicants have added new claims 21-23 to claim additional features of the invention and to vary the protection for the claimed invention further. Applicants have amended claims 1, 2, and 12 to define the claimed invention more particularly.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicants specifically state that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 1, 11, and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 60-32367 (hereinafter “JP ‘367”) in view of Heller (U.S. Patent No. 4, 085,867). Claims 2-6 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over JP ‘367 in view of Heller and further in view of Polan (U.S. 6,158,620). Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over JP ‘367 in view of Heller and further in view of Hoffman, et al. (U.S. Patent Application Publication No. 2002/0157964; hereinafter “Hoffman”). Claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over JP ‘367 in view of Heller and Hoffman and further in view of Akio (U.S. Patent No. 3,150,012). Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over JP ‘367 in view of Heller, Hoffman, and Akio and further in view of Orphadt (U.S. Patent No. 6,875,539).

Applicants respectfully traverse these rejections in the following discussion.

## **I. THE CLAIMED INVENTION**

The claimed invention (e.g., as defined by exemplary claim 1) is directed to a torch with integrated electrolytic action for the surface treatment of metals.

The torch includes a peak-paddle connected with the unipolar electric current supply from an external apparatus, the other pole being connected with the metal surface being treated, in which an electrolytic solution used for the treatment is arranged in a tank connected to the torch to supply the peak-paddle through channels inside the torch, and the electrolytic solution is put under pressure in a delivery direction through a metering device of the solution controlled by the user. The torch includes as a device for controlling a delivery of the electrolytic solution, a manual pump realized with a flexible zone of a shell of the torch, arranged in on any part of supply ducts, the pump comprising a first non-return valve arranged upstream and a second non-return valve arranged downstream of the flexible zone of the shell. The shell includes a handgrip shaped to include rigidifying zones and zones with concentrated flexibility. The shell is shaped to include a chamber at the second non-return valve and at the flexible zone of the shell. The shell is shaped to include preferential sealing zones between an inside of the shell and the metallic body, through annular seats on the metallic body and corresponding annular inner edges in the shell.

Furthermore, a torch (e.g., as defined by exemplary claim 2) includes a peak-paddle connected with the unipolar electric current supply from an external apparatus, the other pole

being connected with the metal surface being treated, in which an electrolytic solution used for the treatment is arranged in a tank connected to the torch to supply the peak-paddle through channels inside the torch, and the electrolytic solution is put under pressure in a delivery direction through a metering device of the solution controlled by the user. The torch further includes, as a device for controlling a delivery of the electrolytic solution, a manual pump realized with a flexible zone of a shell of the torch, arranged in on any part of supply ducts, the pump comprising a first non-return valve arranged upstream and a second non-return valve arranged downstream of the flexible zone of the shell. The shell includes a handgrip shaped to include rigidifying zones and zones with concentrated flexibility. The shell is shaped to include a chamber at the second non-return valve and at the flexible zone of the shell. The shell is shaped to include preferential sealing zones between an inside of the shell and the metallic body, through annular grooves on an outside of the shell for an application of a belt and locking rings of the shell.

Accordingly, the claimed invention is capable of applying electrolytic pickling, polishing, and/or cleaning action in an integrated manner with the same device, which can also be used to carry out the writing and the electrodepositing.

## **II. THE PRIOR ART REJECTIONS**

### **A. The Alleged Combination of JP '367 and Heller**

The Examiner alleges that the one of ordinary skill in the art would have combined Heller with JP '367 to render obvious the claimed invention of claims 1, 11, and 12.

Applicants have amended claim 1 to incorporate the subject matter of dependent claims 2, 4, and 5, thus rendering the Examiner's rejection moot.

In view of the amendment to claim 1, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

**B. The Alleged Combination of JP '367, Heller, and Polan**

The Examiner alleges that one of ordinary skill in the art would have combined Polan and Heller with JP '367 to render obvious the claimed invention of claims 2-6 and 13. Applicants respectfully submit, however, that, even if combined, the alleged combination of references does not teach or suggest each and every feature of the claimed invention.

That is, the alleged combination of references does not teach or suggest, "*wherein the shell is shaped to include preferential sealing zones between an inside of the shell and the metallic body, through annular seats on the metallic body and corresponding annular inner edges in the shell*", as recited in exemplary independent claim 1.

Moreover, the alleged combination of references does not teach or suggest, "*wherein said shell is shaped to include preferential sealing zones between an inside of the shell and the metallic body, through annular grooves on an outside of the shell for an application of a belt and locking rings of the shell*", as recited in exemplary dependent claim 2.

None of the applied references teaches or suggests a metallic body and an external shell surrounding the body. JP '367 includes a body and a piston pump combined in a single part. The external shell is not present. Thus, it is not possible to add a shell on the device of JP '367

(e.g., as illustrated in Figure 7) to make a plain combination as asserted by the Examiner.

Moreover, Heller and Polan disclose two different ways to make a tank with delivery capacity, but neither one teaches or suggests positioning a metallic body into the tank (i.e., “flexible or collapsible” container). Furthermore, neither Heller nor Polan teaches or suggests that the shell (i.e., container) is clamped on the metallic body in two different ways (rigidifying zones or belt and locking rings).

According to the claimed invention, a shell may be tightened on the metallic body to define a chamber with a collapsible wall to work like a reciprocating pump when pressed by the hand of the user.

Heller discloses a container that works in vertical direction only. The torch of the claimed invention works in any direction, contrary to the gravity also. Thus, the teaching of Heller and Polan cannot be combined with the teachings of JP ‘367.

None of the applied references, taken alone or in combination, teach or suggest positioning a first part (i.e., the metallic body) into the other part (i.e., the shell) and clamping it to the first part on a specific section to define a “flexible zone” to pump the electrolyte through the first part.

In view of the above, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

### **C. The Alleged Combination of JP ‘367, Heller and Hoffman**

The Examiner alleges that one of ordinary skill in the art would have combined Hoffman

and Heller with JP '367 to teach the claimed invention of claim 8. Applicants respectfully submit, however, that, even if combined, the alleged combination of references does not teach or suggest each and every feature of the claimed invention.

That is, claim 8 is allowable at least based on analogous reasons to those set forth above with respect to claims 2-6 and 13.

Moreover, Hoffman discloses an electropolishing apparatus for large parts and references a large device with a large pumping capability (i.e., in one minute it can pump about 100 gallons of electrolytic solution; pressure until 150 p.s.i.). The teachings of Hoffman, however, cannot be used to define a small device like the claimed torch, which is used in any direction by hand and not in a standing position only.

Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

**D. The Alleged Combination of JP '367, Heller, Hoffman, and Akio**

The Examiner alleges that one of ordinary skill in the art would have combined Hoffman, Akio, and Heller with JP '367 to teach the claimed invention of claim 9. Applicants respectfully submit, however, that, even if combined, the alleged combination of references does not teach or suggest each and every feature of the claimed invention.

That is, claim 9 is allowable at least based on analogous reasons to those set forth above with respect to claims 2-6 and 13.

Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this

rejection.

**E. The Alleged Combination of JP '367, Heller, Hoffman, Akio, and Orphadt**

The Examiner alleges that one of ordinary skill in the art would have combined Hoffman, Akio, Orphadt, and Heller with JP '367 to teach the claimed invention of claim 10. Applicants respectfully submit, however, that, even if combined, the alleged combination of references does not teach or suggest each and every feature of the claimed invention.

That is, claim 10 is allowable at least based on analogous reasons to those set forth above with respect to claims 2-6 and 13.

Moreover, Orphadt does not teach or suggest a metallic body and shell clamped to the metallic body.

Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

**III. NEW CLAIMS**

Applicants have added new claims 21-23 to claim additional features of the invention and to vary the protection for the claimed invention further. These claims are independently patentable because of the novel and non-obvious features recited therein.

Furthermore, new claims 21-23 are allowable at least based on analogous reasons to those set forth above with respect to claims 1, 2, and 8-13.

#### IV. FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicants submit that claims 1, 2, 8-13, and 21-23, all of the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. Applicants respectfully request the Examiner to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, Applicants request the Examiner to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The undersigned hereby authorizes the Commissioner to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

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